TABLE OF CONTENTS

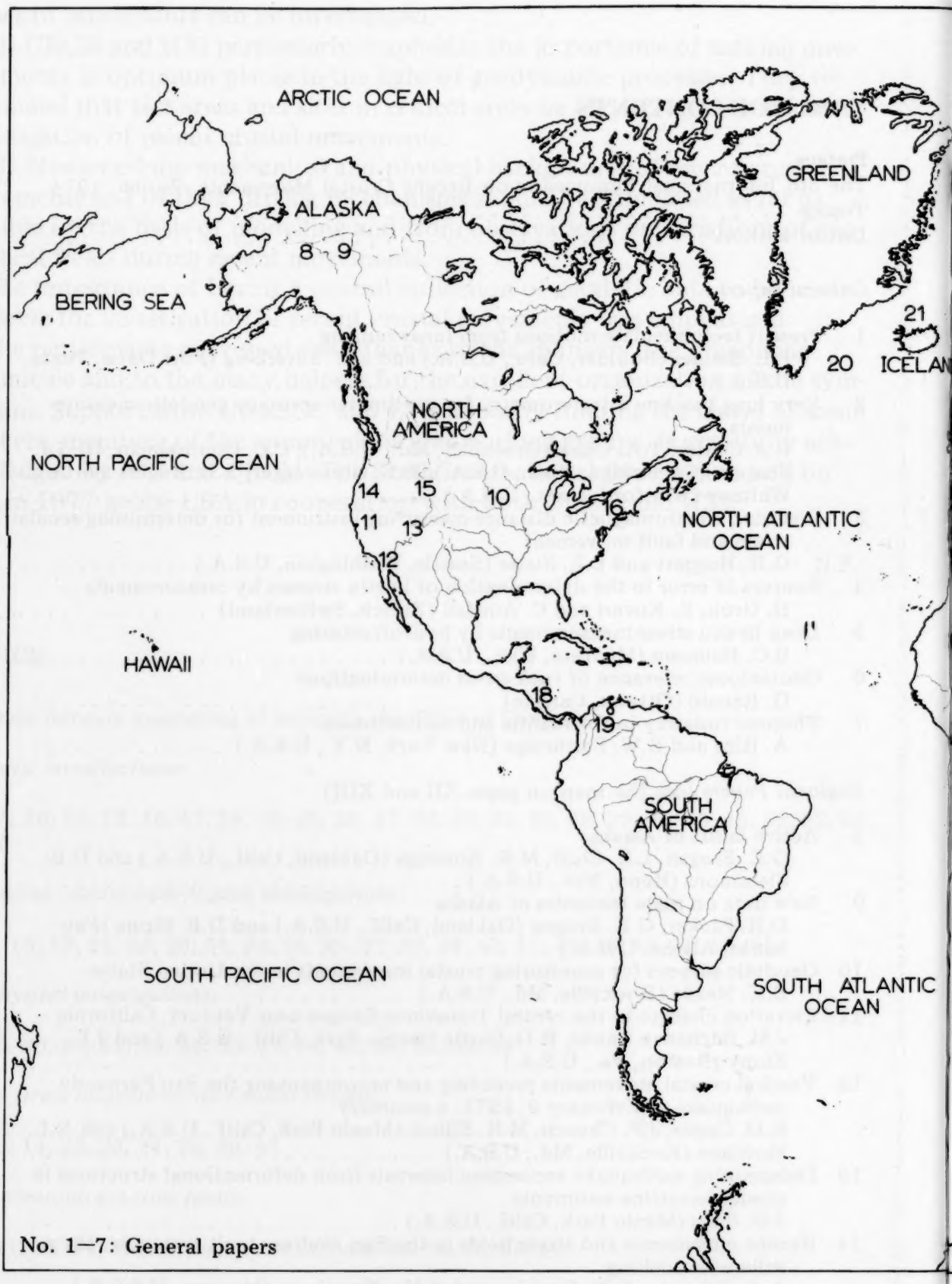
Preface VII
The 5th International Symposium on Recent Crustal Movements, Zurich, 1974 . . VIII
Topics X
List of authors XVI

General Papers

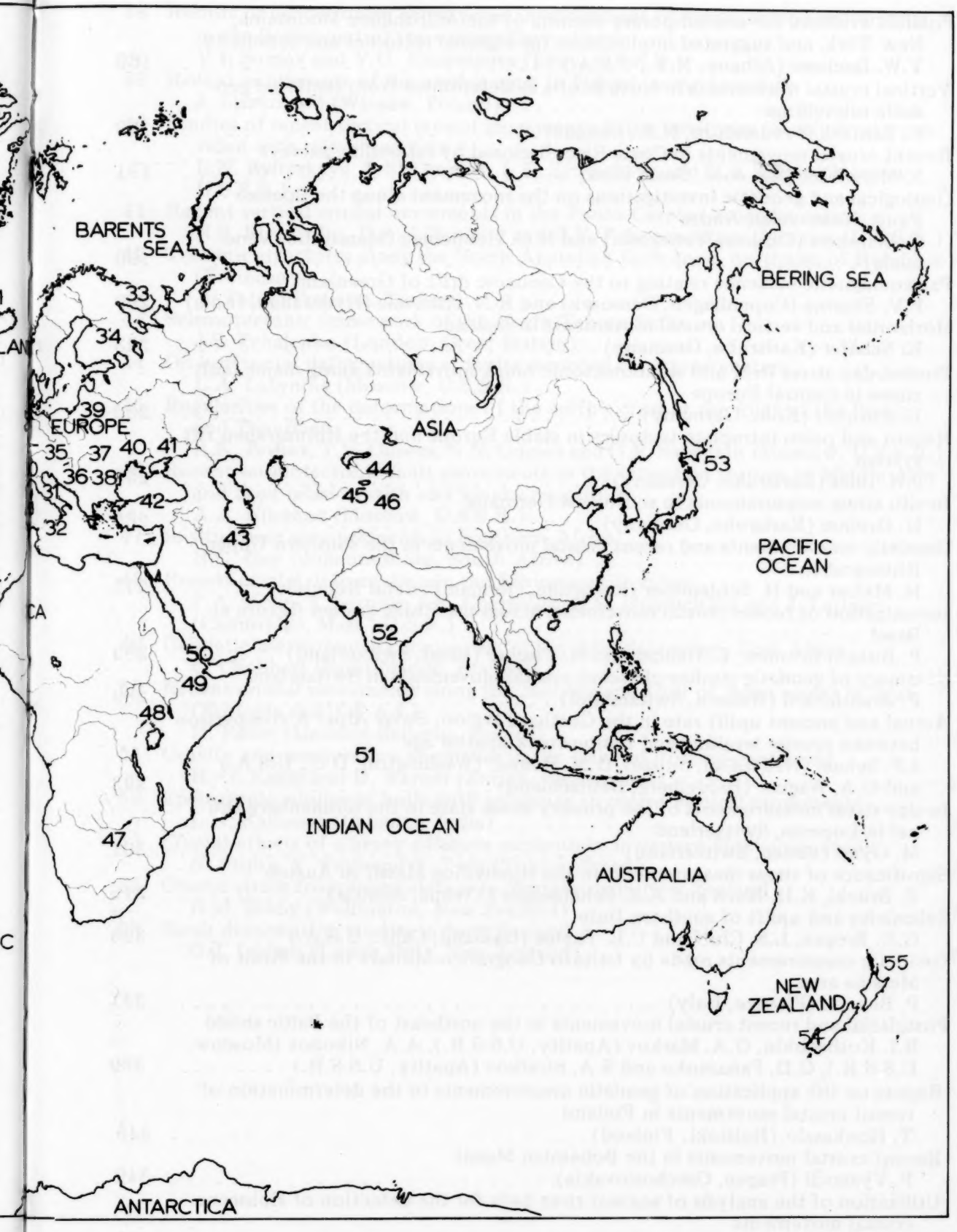
1 Present tectonic-plate motions from lunar ranging
P.L. Bender (Boulder, Colo., U.S.A.) and E.C. Silverberg (Fort Davis, Texas, U.S.A.) 1
2 Very long baseline interferometry for centimeter accuracy geodetic measurements
R.J. Coates, T.A. Clark (Greenbelt, Md., U.S.A.), C.C. Counselman, III, I.I. Shapiro (Cambridge, Mass., U.S.A.), H.F. Hinteregger, A.E. Rogers and A.R. Whitney (Westford, Mass., U.S.A.) 9
3 Precision electromagnetic distance-measuring instrument for determining secular strain and fault movement
G.R. Huggett and L.E. Slater (Seattle, Washington, U.S.A.) 19
4 Sources of error in the determination of in-situ stresses by measurements
H. Grob, K. Kovari and C. Amstad (Zurich, Switzerland) 29
5 Deep in-situ stress measurements by hydrofracturing
B.C. Haimson (Madison, Wisc., U.S.A.) 41
6 Geotectonic relevance of rock-stress determinations
G. Ranalli (Ottawa, Canada) 49
7 Thermal runaway in the mantle and neotectonics
A. Rice and R.W. Fairbridge (New York, N.Y., U.S.A.) 59

Regional Papers (see the map on pages XII and XIII)

8 Active faults of Alaska
G.E. Brogan, L.S. Cluff, M.K. Korringa (Oakland, Calif., U.S.A.) and D.B. Slemmons (Reno, Nev., U.S.A.) 73
9 New data on plate tectonics of Alaska
D.R. Packer, G.E. Brogan (Oakland, Calif., U.S.A.) and D.B. Stone (Fairbanks, Alaska, U.S.A.) 87
10 Geodetic surveys for monitoring crustal movements in the United States
B.K. Meade (Rockville, Md., U.S.A.) 103
11 Elevation changes in the central Transverse Ranges near Ventura, California
J.M. Buchanan-Banks, R.O. Castle (Menlo Park, Calif., U.S.A.) and J.I. Ziony (Reston, Va., U.S.A.) 113
12 Vertical crustal movements preceding and accompanying the San Fernando earthquake of February 9, 1971: a summary
R.O. Castle, J.P. Church, M.R. Elliott (Menlo Park, Calif., U.S.A.) and N.L. Morrison (Rockville, Md., U.S.A.) 127
13 Determining earthquake recurrence intervals from deformational structures in young lacustrine sediments
J.D. Sims (Menlo Park, Calif., U.S.A.) 141
14 Recent movements and stress fields in the San Andreas fault system by the results of modelling
A.A. Nikonov, D.N. Osokina and N.Yu. Tsvetkova (Moscow, U.S.S.R.) 153
15 Recent activity of the Wasatch fault, northwestern Utah, U.S.A.
L.S. Cluff (Oakland, Calif., U.S.A.), L.F. Hintze (Provo, Utah, U.S.A.), G.E. Brogan (Oakland, Calif., U.S.A.) and C.E. Glass (Tucson, Ariz., U.S.A.) 161



No. 1—7: General papers


BARENTS SEA
BERING SEA
EUROPE
ASIA
PACIFIC OCEAN
INDIAN OCEAN
AUSTRALIA
NEW ZEALAND
ANTARCTICA
33
34
39
35
37
40
41
36
38
42
32
43
44
45
46
53
52
50
49
48
51
47
55
54

16 Possible evidence for contemporary doming of the Adirondack Mountains, New York, and suggested implications for regional tectonics and seismicity
Y.W. Isachsen (Albany, N.Y., U.S.A.) 169
17 Vertical crustal movements in Nova Scotia as determined from scattered geodetic relevellings
P. Vaníček (Fredericton, N.B., Canada) 183
18 Recent crustal movements in Costa Rica disclosed by relevelling surveys
S. Miyamura (San José, Costa Rica) 191
19 Geological and geodetic investigations on the movement along the Boconó Fault, Venezuelan Andes
C. Schubert (Caracas, Venezuela) and H.G. Henneberg (Maracaibo, Venezuela) 199
20 Palaeomagnetic evidence relating to the Cenozoic drift of Greenland
P.V. Sharma (Copenhagen, Denmark) and R.N. Athavale (Hyderabad, India) 209
21 Horizontal and vertical crustal movements in Iceland
K. Schäfer (Karlsruhe, Germany) 223
22 Present-day stress field and seismotectonic block movements along major fault zones in Central Europe
L. Ahorner (Köln, Germany) 233
23 Recent and paleo-intraplate tectonics in stable Europe and the Rhinegraben rift system
J.H. Illies (Karlsruhe, Germany) 251
24 In-situ stress measurements in southwest Germany
G. Greiner (Karlsruhe, Germany) 265
25 Geodetic measurements and recent crustal movements in the southern Upper Rhinegraben
H. Mälzer and H. Schlemmer (Karlsruhe, German Federal Republic) 275
26 Investigation of recent crustal movements across the Rhine-graben flexure at Basel
P. Bitterli-Brunner, L. Hauber and H. Fischer (Basel, Switzerland) 283
27 Summary of geodetic studies of recent crustal movements in Switzerland
F. Jeanrichard (Wabern, Switzerland) 289
28 Actual and ancient uplift rate in the Gotthard region, Swiss Alps: A comparison between precise levelling and fission-track apatite age
J.P. Schaer (Neuchâtel, Suisse), G.M. Reimer (Washington, D.C., U.S.A.) and G.A. Wagner (Heidelberg, Deutschland) 293
29 In-situ stress measurements of the primary stress state in the Sonnenberg tunnel in Lucerne, Switzerland
M. Gysel (Baden, Switzerland) 301
30 Significance of stress measurements in the Hochkönig Massif in Austria
E. Brückl, K.H. Roch and A.E. Scheidegger (Vienna, Austria) 315
31 Seismicity and uplift of southern Italy
G.E. Brogan, L.S. Cluff and C.L. Taylor (Oakland, Calif., U.S.A.) 323
32 Geodetic measurements made by Istituto Geografico Militare in the Strait of Messina area
P. Bencini (Firenze, Italy) 331
33 Postglacial and recent crustal movements in the northeast of the Baltic shield
B.I. Koshechkin, G.A. Markov (Apatity, U.S.S.R.), A.A. Nikonov (Moscow, U.S.S.R.), G.D. Panasenko and S.A. Strelkov (Apatity, U.S.S.R.) 339
34 Report on the application of geodetic measurements to the determination of recent crustal movements in Finland
T. Honkasalo (Helsinki, Finland) 345
35 Recent crustal movements in the Bohemian Massif
P. Vyskočil (Prague, Czechoslovakia) 349
36 Utilization of the analysis of ancient river beds for the detection of Holocene crustal movements
K. Mike (Budapest, Hungary) 359
37 Movement tendencies of the West Carpathians in the Quaternary
J. Kvitkovič (Bratislava, Č.S.S.R.) 369

38 Results of geodetic and geophysical investigations of recent crustal movements in the Soviet part of the eastern Carpathians
V.I. Somov and V.G. Kuznetsova (Lvov, U.S.S.R.). 377
39 Recent movements of the earth's crust in Poland: some new data
J. Liszkowski (Warsaw, Poland) 383
40 Studies of recent vertical crustal movements at the territories insufficiently provided with relevelling data
L.N. Bylinskaya, S.K. Gorelov, L.E. Setunskaya and V.A. Filkin (Moscow, U.S.S.R.). 389
41 Recent vertical crustal movements in the Ponto-Caspian orogenic region
N.S. Blagovolin, D.A. Lilienberg and S.V. Pobedonostsev (Moscow, U.S.S.R.) 395
42 Tectonic structures along the North Anatolian fault zone, northeast of Refahiye (Erzincan)
Y. Tatar (Trabzon, Turkey). 401
43 Seismotectonic framework of the North Tehran fault
J.S. Tchalenko (London, Great Britain). 411
44 On horizontal deformations at faults recorded by extensometers
L.A. Latynina (Moscow, U.S.S.R.) 421
45 Regularities of the deformations of the earth's crust at the joint of the Pamirs and Tien-Shan
A.K. Pevnev, T.V. Guseva, N.N. Odinev and G.V. Saprykin (Moscow, U.S.S.R.) 429
46 Recent seismotectonic fault movements in the mountain regions of Middle Asia and their relation with earthquake magnitude
A.A. Nikonov (Moscow, U.S.S.R.) 439
47 In-situ stress measurements in Southern Africa
N.C. Gay (Johannesburg, South Africa) 447
48 Recent crustal deformation in the Ethiopian rift valley
P.A. Mohr, A. Girnius, J.R. Cherniack, E.M. Gaposchkin and J. Latimer (Cambridge, Mass., U.S.A.) 461
49 Geodetic measurements across part of the Afar depression, East Africa
C. Chabbert (Saint-Mandé, France). 471
50 Recent crustal movements along the Red Sea and Gulf of Aden coasts in Afar (Ethiopia and T.F.A.I.)
H. Faure (Meudon-Bellevue, France). 479
51 Gravity and temperature anomalies in the wake of drifting continents
H.-G. Kahle and D. Werner (Zurich, Switzerland). 487
52 Epeirogenic studies in India with reference to recent vertical movements
L.N. Kailasam (Calcutta, India) 505
53 Crustal effects of a heavy offshore earthquake in eastern Hokkaido, Japan
N. Fujita, Y. Fujii and T. Tada (Tokyo, Japan). 523
54 Crustal strain from triangulation in Marlborough, New Zealand
H.M. Bibby (Wellington, New Zealand) 529
55 Earth deformation studies in New Zealand
G.J. Lensen (Lower Hutt, New Zealand) 541